IN THE SPECIFICATION

Please replace the paragraph on page 6 starting on line 10 and ending on line 7 of page 7 with the following paragaraph:

Figure 1 hereof is schematic representation of the main features of a modular auxiliary oven assembly of the present invention. A housing **10** that completely encloses an oven compartment **12** that itself is completely enclosed on all sides. The housing can be of any suitable material, preferably a metallic material that can withstand the temperatures of the oven contained therein. It is preferred that the housing be comprised of aluminum of suitable thickness. Housing **10** contains inlet port and line **14** and outlet port and line **15** for passing a flowing chemical sample to be analyzed into and out of oven compartment **12** and through a chromatography sampling valve **16** and through a fixed volume sampling means (line or loop) **18** which may or may not be an integral part of the sampling valve. By integral part I mean the sampling means ~~in~~ is located within the sampling valve and not just connected external to it. In operation, a chemical sample stream to be analyzed flows through the chromatography sampling valve's inlet (a) and then passes through the fixed volume sample loop as it proceeds to the outlet (b) of the valve before it exits the system through the sample outlet line. The chemical sample is used to purge the fixed volume sample loop for an effective period of time. That is, at least that minimum amount of time needed to purge and displace the sample loop of contaminants before the valve is switched or actuated to inject the sample. When the valve is actuated the sample loop is disconnected from the sample inlet and outlet ports (a and b) of the valve and connected in turn to the carrier gas inlet port (e) and the column inlet port (d). The carrier gas stream, which flows into the oven via line **19** is continuously flowing through the sampling valve and one or more chromatograph columns or column trains, then sweeps the fixed volume sample into it from the sample loop and into the column.

Please replace the paragraph on page 7 starting on line 8 and ending on line 19 with the following paragaraph:

The chromatography sampling valve **16** can be any multi-position (port) valve suitable for gas chromatograph purposes. Inlet and outlet ports are labeled a through f. Diaphragm type valves are preferred, such as those available from Valco Instruments Co. Inc. The diaphragm of these valves is commonly comprised of a polyimide. Also, gas ~~chromatograph~~ chromatography is well known and is described in Basic Gas Chromatography (Techniques in Analytical Chemistry), by Harold M. McNeil and James M. Miller, Wiley –Interscience, First Edition, 1997, which is incorporated herein by reference. Also, more than one, preferably three sampling valves can be contained in the auxiliary oven. If two or more sampling valves are used it is preferred that they be fluidly connected in series and not parallel so that one sample inlet port **14** and one sample outlet port **15** can be used for all two or more sampling valves.

Please replace the paragraph on page 7, starting on line 20 and ending on line 14 of page 8 with the following paragaraph:

Returning to the figure, the inlet port(s) of the housing and the inlet of the oven compartment are fluidly connected by way of a suitable conduits **20**, such as the appropriate size stainless steel tubing so that a chemical sample can be passed to an inlet port of the multi-port sampling valve **16**. An outlet port of the chromatograph multi-port sampling valve is fluidly connected via a suitable transfer line **22** to the inlet of a chromatograph column or column train **24**. By column train is meant that two or more columns are fluidly connected in series so that a chemical sample to be analyzed serially passes through two or more columns before being sent to a detector. It is preferred that there be two or more chromatograph columns and/or column trains that can be operated in parallel mode as opposed to being connected in series. If a parallel column configuration is employed a different carrier gas can flow through each column or column train so that each column or column train can be used simultaneously to analyze for different chemical components of a chemical sample. Even if different carrier gases are used in each column, a common detector can be used in the practice of the present invention by use of a suitable switching valve (not shown). Also two or more parallel column trains will allow one to switch from one to the other with respect to a common

detector. For example, if one column or column train having a carrier gas flowing there through, is used to analyze for a chemical component(s) that moves through the column very quickly the detector can be switched to the other column or column train having a different carrier gas, and detect chemical components that move through a chromatograph column relatively slowly.

Please replace the paragraph on page 14, starting on line 10 and ending on line 19 with the following paragaraph:

In a preferred embodiment of the present invention a refinery or chemical sample is analyzed in a [3] three sub-system apparatus wherein each sub-system operates simultaneously to provide an extremely fast reliable system. The sample stream will be comprised of: a) at least one chemical component selected from the C_1 to C_6 hydrocarbons; b) hydrogen; and c) at least one component selected from oxygen, nitrogen, carbon dioxide, and carbon monoxide. In other words, three separate columns or column trains are used substantially simultaneously to perform three different chemical analysis using two or more different carrier gases. The entire analysis is performed in a system that comprises an auxiliary oven assembly of the present invention and a mainframe gas chromatograph.

Please replace the paragraph on page 15, starting on line 21 and ending on line 3 of page 6 with the following paragaraph:

Optimum value typically means the operating range suggested by the manufacturer of the column. Applicant has ~~unexpected~~ unexpectedly found that he can operate the columns, particularly capillary and micro-packed, at least [2] two times, preferably at least [3] three times the suggested rate and obtain an analysis at unexpected short times with expectedly good resolution of the resulting analytes. Also, while conventional wisdom teaches that the manufacturers recommendation of say 10 ml/min flow rate should be maintained it has been found by the inventor hereof that flow rates as high as 30 to 50 ml/min can be obtained ~~with~~ without significant loss of resolution.

Please replace the paragraph on page 16, starting on line 8 and ending on line 20 with the following paragaraph:

The first sub-system utilizes a [6-port] six-port diaphragm gas sampling stainless steel valve mounted in the modular auxiliary oven assembly with helium as the carrier gas, although hydrogen can also be used. The sampling valves used herein are used in association with a fixed volume sample loop. The main gas chromatograph unit contains an electronic pressure controlled split capillary inlet capable of programmed rates of 100 psi per minute and a maximum pressure of 100 psi. The split capillary inlet allows for only a portion of the sample to move through the chromatograph column, with the remaining, or excess portion being vented. Split injection is preferred for capillary columns. The sample is injected, vaporized and mixed with the carrier gas. A fraction of the sample-gas mixture flows onto the column, the remainder is vented to the atmosphere. The ratio of sample delivered onto the column to that going to vent is controlled by a suitable means, such as an adjustable needle valve.

Please replace first full paragraph on page 20, which starts on line 1, with the following paragaraph:

Situated between the second and third subsystem and the single thermal conductivity detector is a [10 port] ten-port diaphragm valve configured to allow alternate selection of the two separate column trains and their associated carrier gas/reference gas streams. Each of the separate carrier gas streams and their associated reference gas streams are allowed to flow continuously with no interruption and minimized dead volume. Switching speed between the two streams is enhanced by the selection of narrow bore columns and the high carrier gas flow rates associated with the methods described here. This allows one to use a common detector for two or more columns or column trains having two or more different carrier gases flowing therethrough. For example, in this preferred embodiment, three analysis are being performed substantially simultaneously. The first sub-system performs the C_1 to C_6 hydrocarbon analysis using the oven and column of the gas chromatograph mainframe wherein a sampling valve of the auxiliary oven assembly is used for the initial injection of the sample and routing it to the gas chromatograph mainframe.